Columbus Day Safety and Fire Prevention

Safe Driving

- **Vehicle Preparation**
- **Driving and walking in adverse weather conditions (rain, storm fog, ice)**
- **Prevention of wild animal accidents**

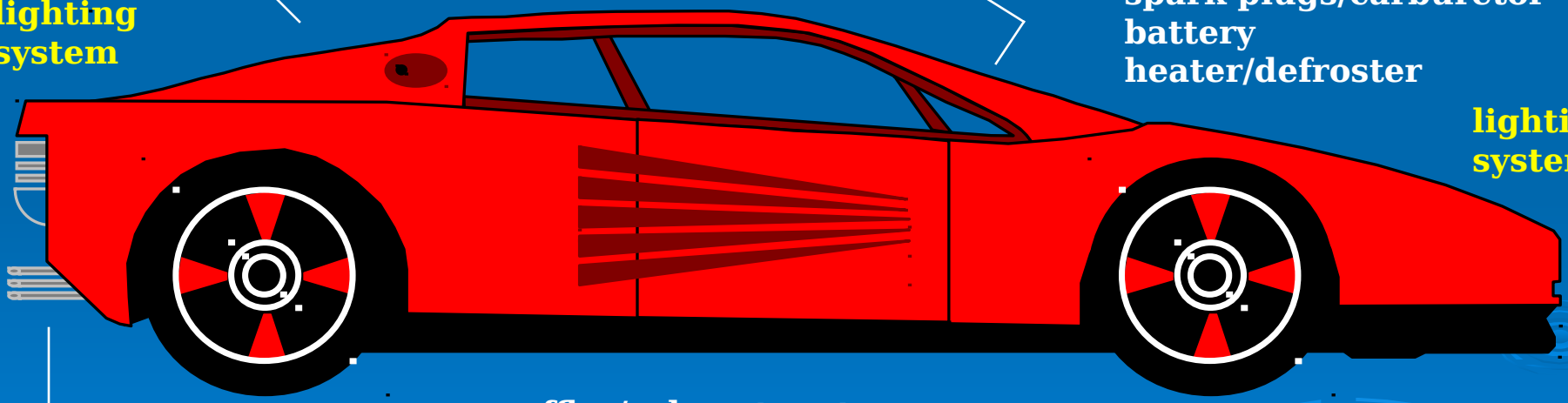
& ✔ your car before you end up in here

wind shield wipers and fluid

lighting system

anti freeze
spark plugs/carburetor
battery
heater/defroster

lighting system



muffler/exhaust system

winter tires
brake system

Vehicle Preparation

- Be sure all lights are in good working order.

  Routine precautions help you avoid starting problems:

- Get an engine tune-up in the fall.
- Have the brakes adjusted.
- Remember to switch to winter-weight oil if you aren't already using all-season oil.
- Battery and voltage regulator should be checked.

Dirty oil can give you trouble in the winter, so change the oil and filter.

Vehicle Preparation

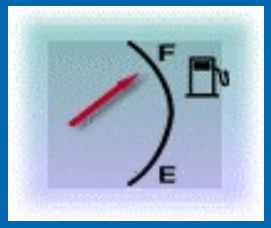
- If the battery terminal posts seem to be building up a layer of corrosion, clean them with a paste of baking soda and water. Let it foam, and then rinse with water. Then apply a thin film of petroleum jelly to the terminal posts to prevent corrosion, and reconnect. *Wear Eye protection*
- Be sure all fluids are at proper levels.
- Antifreeze should not only be strong enough to prevent freezing, but fresh enough to prevent rust.
- Check all filters, including the fuel, air and transmission filters
- Have the exhaust system checked fully for

Vehicle Preparation

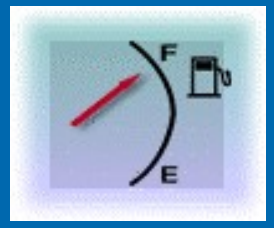
- Check your heating and cooling system for cracks and leaks. Make sure the radiator cap, water pump and thermostat work properly. Test the strength of the anti-freeze, and test the functioning of the heater and defroster.

- Make sure windshield wipers are in good condition and fill up on winter washer fluid. Ensure your windshield can give you clear vision of the road and traffic around you.

- Make sure wiper blades are cleaning properly. Consider changing to winter wiper blades, which are made for driving in snow. They are covered



Vehicle Preparation



HOT HOT HOT -- DON'T FORGET TO FILL UP WITH FUEL

TIRE SAFETY CAN SAVE YOUR LIFE

- **Don’t under-inflate or overload your tires.**
- **Check the condition of the tire and tire pressure regularly.**
- **Excessive wear on the tread and cracks on sidewalls are signs of tire problems.**

Correc Over-inflated Under-inflated

Results of an underinflated tire

Driving in adverse weather conditions

Impaired vision

Hydro-planing

Rain

Impaired vision

- ***Slow down and i n c r e a s e the distance to the vehicle driving ahead.***
- ***TURN YOUR LIGHTS ON***

Whenever daytime visibility is less than ideal, turning on your lights allows you to see, and to be seen by others.

Remember this rule of thumb:

Wipers On – Lights On

Hydroplaning

Hydroplaning occurs when a vehicle is moving too fast

across a wet surface.

STEP 1: The water can not be channeled away from

the center of the tire.

STEP 2: The water forms a wedge between the tire

and the road.

STEP 3: The tire is lifted from the road by the water

and looses all traction.

This is what your tire is basically doing !

Hydroplaning

Tread depth

Tread design

Speed

Tire pressure

Factors that have an impact on hydroplaning

Weight of vehicle

Road Surface

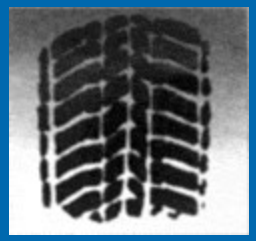
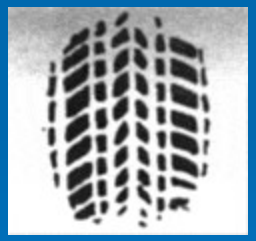
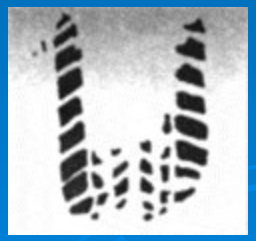
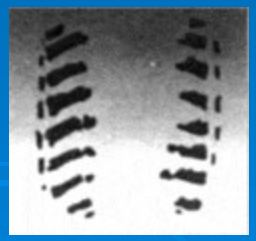
Depth of water

You don’t have any or only a minor influence on the bottom factors.

Therefore, concentrate all your efforts to control the top factors.

Hydroplaning

Tread depth

Speed	0.31 in 8 mm	0.12 in 3 mm	0.06 in 1.6 mm
0 mph 0 km/h			
43 mph 70 km/h			
62 mph 100 km/h			

Remember: Good tires and reduced speed can save your life!

Hydroplaning

Safety tips for drivers:

- Slow down and i n c r e a s e the distance to the vehicle driving ahead.
- Watch out for water accumulations. They mostly occur after heavy rain showers in curves, on slopes, on uneven roads, roads with grooves, in underpasses, on wide roads and at intersections.
- If your car starts hydroplaning slow down by letting off th gas pedal and keep the steering wheel straight.
- Don’t apply the brakes or move steering wheel. This will l your tires and put them in the wrong direction when they in contact with the road again.

Hydroplaning

Where does hydroplaning mostly appear?

Curves

Hills

Uneven roads

Underpasses

Wide roads

Intersections

Driving in adverse weather conditions

High Winds

High Winds

Safety tips for drivers:

- If you are driving when high winds occur, pull safely off the road and seek shelter in a building. If this is not possible do the following:
- Be careful while driving on bridges, hills and through forests with aisles. These areas are extremely vulnerable for high winds and are mostly marked with appropriate signs and wind socks.
- Slow down and increase the distance to the vehicle driving ahead.
- Keep both hands at the steering wheel and be prepared to adjust for the wind impact.
- Avoid passing. Specially trucks, vans or mobile homes will

Driving in adverse weather conditions

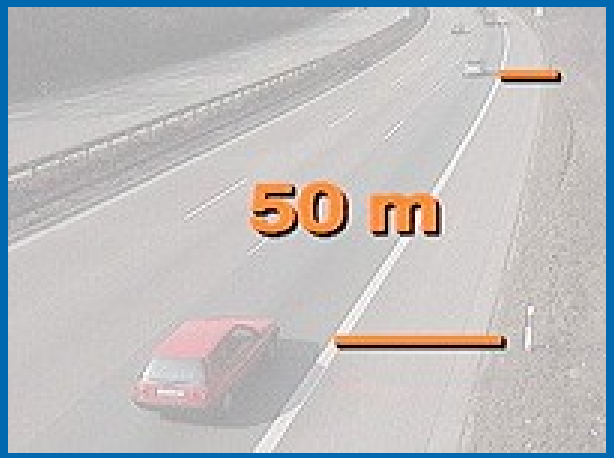
Fog

Fog

Safety tips for drivers:

- Keep your windows and lights clean.
- Adjust your speed to visibility.
- Slow down and i n c r e a s e the distance to the vehicle driving ahead.
- TURN YOUR LIGHTS ON – (Head lights and fog headlights available). Turning on your lights allows you to see, and to seen by others.
- The use of the rear fog light is only authorized if the visibili below 50 meters. This applies in and out of built-up areas.
- Driving in the fog is stressful and requires a lot of concentration.
  Therefore, drivers should take regular breaks at rest areas.
- But don't turn off your lights in rest areas so that other driv

Fog



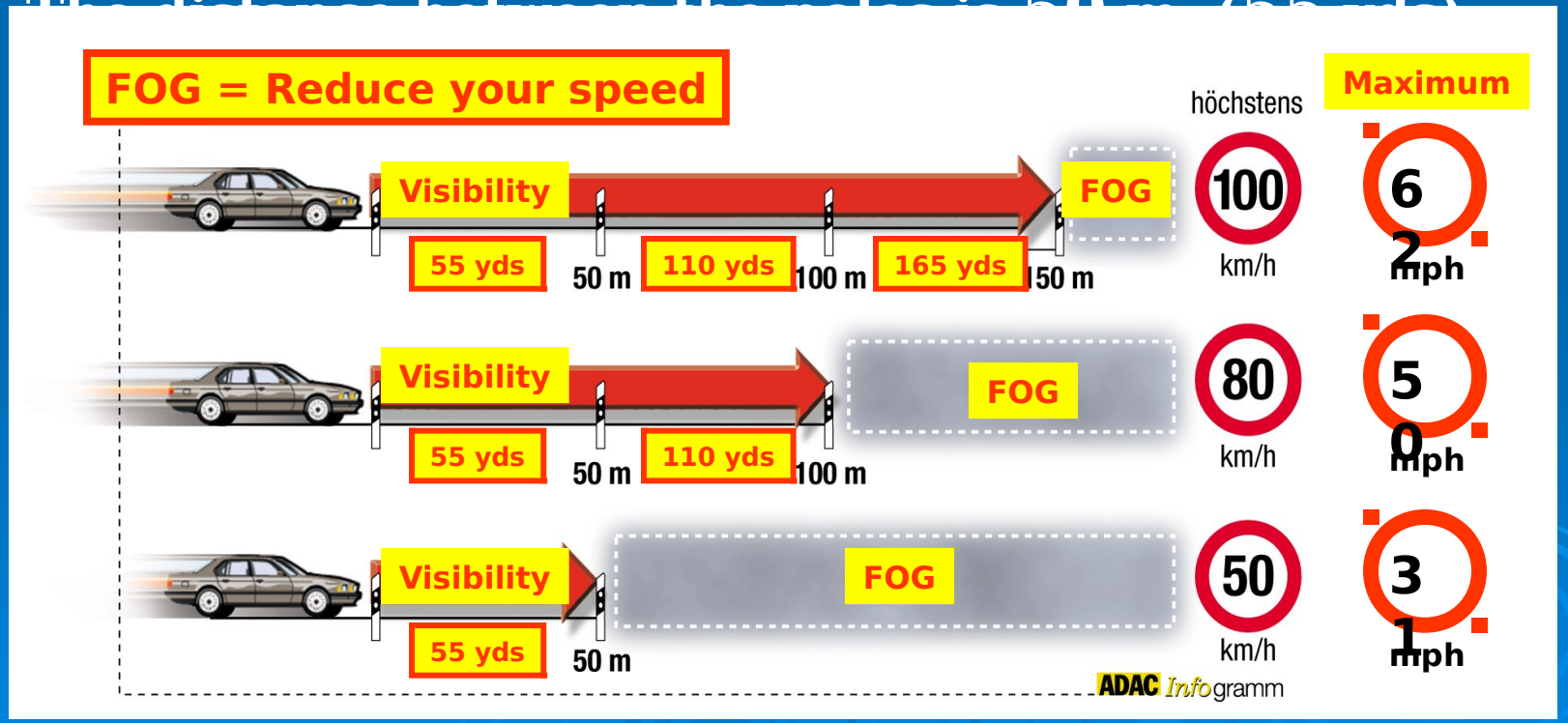
55 yards
visibility
max. 31
mph

Use of rear fog light
authorized when
visibility is below 55 yards
(50m).

Fog

Safety tips for drivers:

- The reflecting poles along the roadside are a good tool in estimating visibility.
- The distance between the poles is 50 m (55 yds).



Driving in adverse weather conditions

Black Ice

...can occur at 39(°F)

Black Ice

Facts

- Black ice can be one of the most dangerous conditions on fall and winter roads .
- It is almost invisible and can catch drivers off guard.
- Black ice is clear and appears black because the dark asphalt surface underneath shows through.
- It can form on heavily congested highways from auto emissions, but other roads are susceptible including those in shaded areas, near lakes and rivers, in tunnels and on overpasses.
- Black ice forms when the air temperature is warmer than pavement, which causes moisture to rapidly freeze and

Black Ice

Safety tips for drivers:

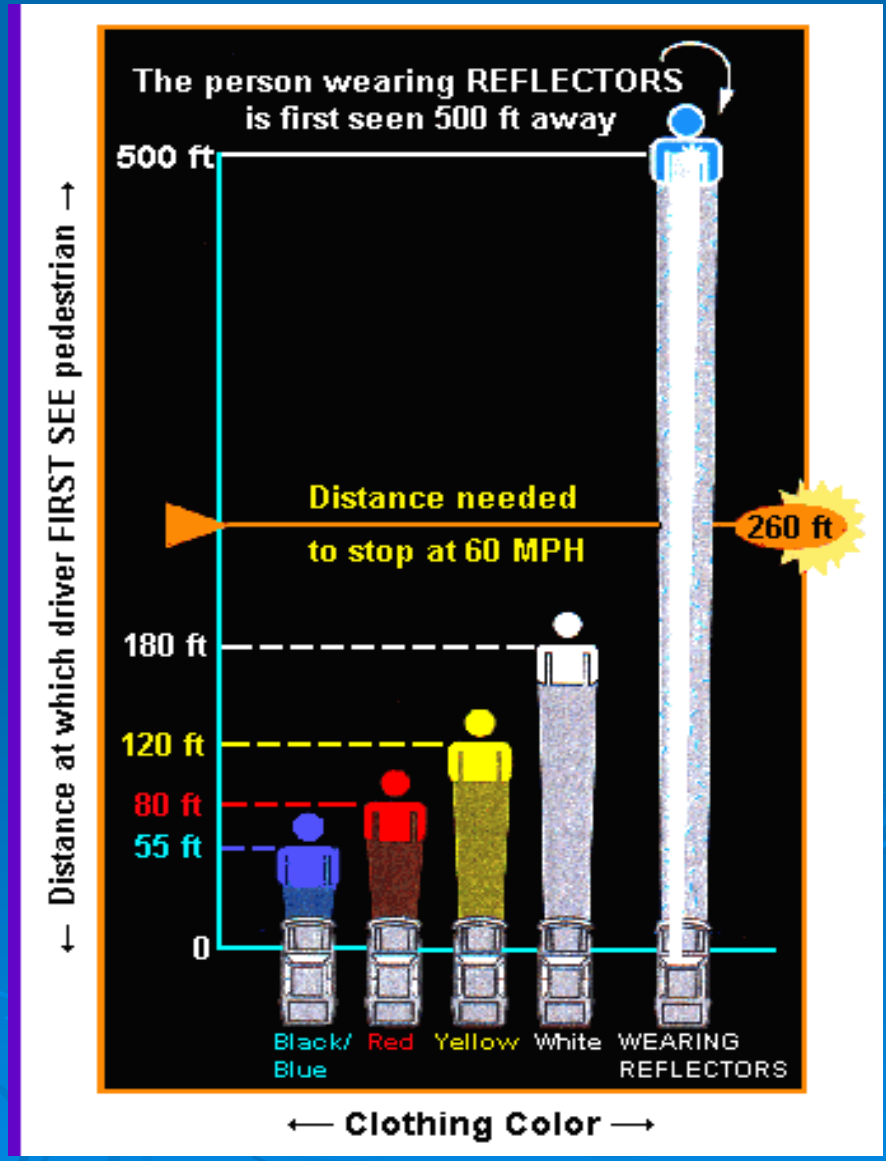
- Be aware that black ice is almost invisible.
- Be especially careful on bridges, overpasses, near lakes or rivers, in shaded areas, tunnels, in the vicinity of power plants and in early morning when the air temperature is rising faster than the pavement temperature.
- Never brake while driving on ice. Applying pressure to your brakes while on ice will cause a vehicle to skid. Brake only during your approach.

Pedestrian/Bicycle Safety in adverse weather and darkness

Pedestrian/Bicycle Safety

- Studies have shown that pedestrians and bicycle riders walking /driving along a road in dark clothing at night are first seen approximately 55 feet away giving the driver less than one second reaction time.
- Therefore, wear light color clothing or clothes with reflective stripes to increase your visibility.

"SEE AND BE SEEN"



Good "Visibility" can save your life!

Prevention of wild animal accidents

Wild Animal Crossing

Safety tips for drivers:

- Slow down if you see the wild animal crossing sign especially during dusk, dawn or night and in forest areas
- Watch out for animals on the side of the road and keep a safe distance.
- In most cases numerous animals will cross the street. Therefore, be prepared for “stragglers”.
- If there are animals on the road already - only stop if the no chance for a rear end collision with the following car.
- Don’t try any risky maneuvers to avoid a collision. You ma end up hitting a tree or drive into a ditch.

Wild Animal Crossing

Safety tips for drivers:

- In case of an accident the following steps should be taken
- Position a warning triangle at a proper distance to alert the upcoming traffic.
- Inform the Police about the accident. They will contact th appropriate authorities.
- Don’t touch the animal it can transmit diseases or injure you if only wounded.
- Don’t take the dead animal with you otherwise you will be fined for poaching.

Slow down

to avoid this

Questions ?

Comments !

Let's go to Fire Prevention....

Fire Prevention and Safety in the Home

Fire Prevention

HOW FIRES START

Fire is a chemical reaction involving rapid oxidation or burning of a fuel. It needs three elements to occur:

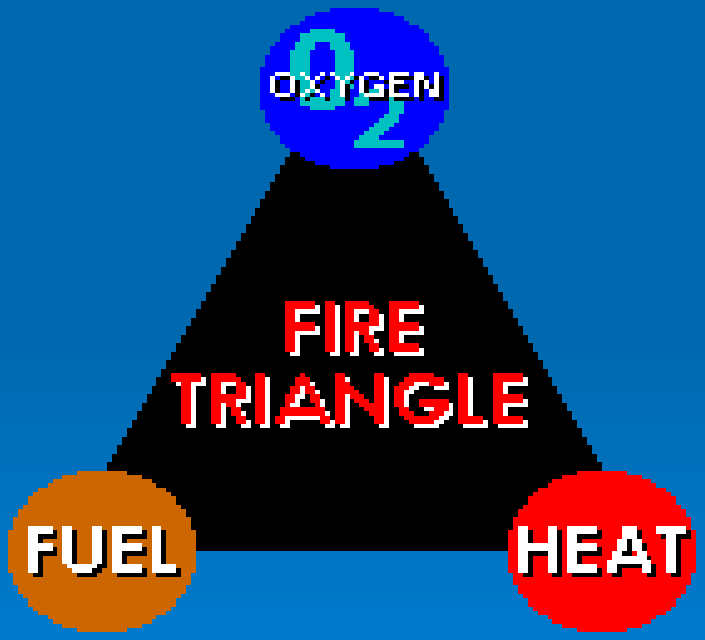
FUEL - Fuel can be any combustible material - solid, liquid or gas. Most solids and liquids become a vapor or gas before they will burn.

OXYGEN - The air we breathe is about 21 percent oxygen. fire only needs an atmosphere with at least 16 percent oxygen.

HEAT - Heat is the energy necessary to increase the

Fire Prevention

CHEMICAL REACTION - A chain reaction can occur when the three elements of fire are present in the proper conditions and proportions. Fire occurs when this rapid oxidation, or burning takes place.



Take any one of these factors away, and the fire cannot occur or will be extinguished if it was already burning.

Fire Prevention

HOW FIRES ARE CLASSIFIED

CLASS A

Ordinary combustibles or fibrous material, such as wood, paper, cloth, rubber and some plastics.

CLASS B

Flammable or combustible liquids such as gasoline, kerosene, paint, paint thinners and propane.

CLASS C

Energized electrical equipment, such as appliances, switches, panel boxes and power tools.

CLASS D

Certain combustible metals, such as magnesium, titanium, potassium and sodium. These metals burn at high temperatures and give off sufficient oxygen to support combustion. They may react violently with water or other chemicals, and must be handled with care.

Fire Prevention

HOW TO PREVENT FIRES

Class A — Ordinary combustibles:

Keep storage and working areas free of trash.
Place oily rags in covered containers.

Class B — Flammable liquids or gases:

Don't refuel gasoline-powered equipment in a confined space, especially in the presence of an open flame such as a furnace or water heater.

Don't refuel gasoline-powered equipment while it's hot.

Keep flammable liquids stored in tightly closed, self-closing, spill-proof containers. Pour from storage drums only what you'll need.

Store flammable liquids away from spark-producing sources.

Use flammable liquids only in well-ventilated areas.

Fire Prevention

HOW TO PREVENT FIRES

Class C — Electrical equipment:

Look for old wiring, worn insulation and broken electrical fittings. Report any hazardous condition to your supervisor.

Prevent motors from overheating by keeping them clean and in good working order. A spark from a rough-running motor can ignite the oil and dust in it.

Utility lights should always have some type of wire guard over them. Heat from an uncovered light bulb can easily ignite ordinary combustibles.

Don't misuse fuses. Never install a fuse rated higher than specified for the circuit.

Investigate any appliance or electrical equipment that smells strange. Unusual odors can be the first sign of fire.

Don't overload wall outlets. Two outlets should have no more than two plugs.

Fire Prevention

Class D — Flammable Metals

HOW TO PREVENT FIRES

Flammable metals such as magnesium and titanium generally take a very hot heat source to ignite; however, once ignited are difficult to extinguish as the burning reaction produces sufficient oxygen to support combustion, even under water.

In some cases, covering the burning metal with sand can help contain the heat and sparks from the reaction.

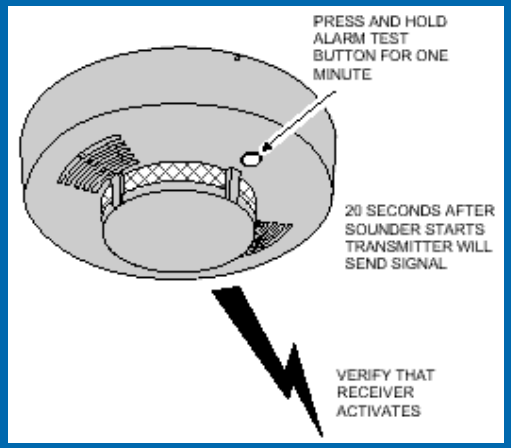
Pure metals such as potassium and sodium react violently *(even explosively)* with water and some other chemicals, and must be handled with care. Generally these metals are stored in sealed containers in a non-reactive liquid to prevent decay *(surface oxidation)* from contact with moisture in the air.

White phosphorus is air-reactive and will burn/explode on contact with room air. It must be kept in a sealed container with a non-reactive solution to prevent contact with air.

Fire Alarm

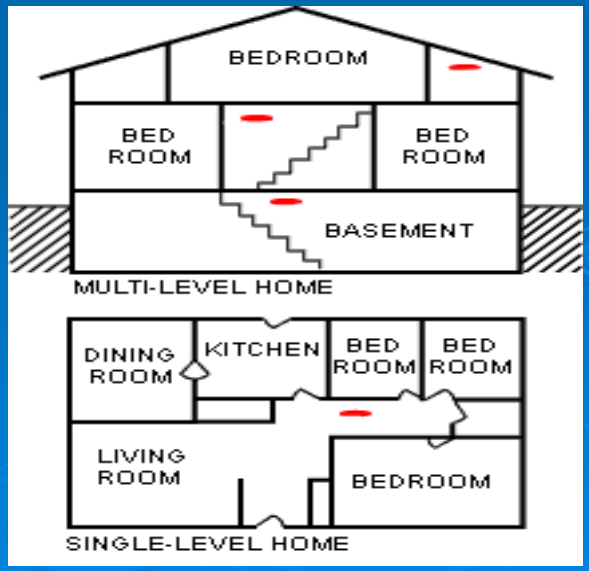
Even if you consider all preventive measures a fire can still occur

IN A FIRE, EVERY SECOND COUNTS!


PRESS AND HOLD ALARM TEST BUTTON FOR ONE MINUTE
20 SECONDS AFTER SOUNDER STARTS TRANSMITTER WILL SEND SIGNAL
VERIFY THAT RECEIVER ACTIVATES

For early detection of fires, install smoke detectors near your sleeping areas and perform a regular function check. Since most smoke detectors are battery operated the battery must be changed frequently to enable a proper function.

If you have a multi-story house, install smoke detectors at each level in the home.



INSTALLATION

Wall mounted: 4 to 12 inch from ceiling

Ceiling mounted: 4 inch from the wall

Fire Evacuation

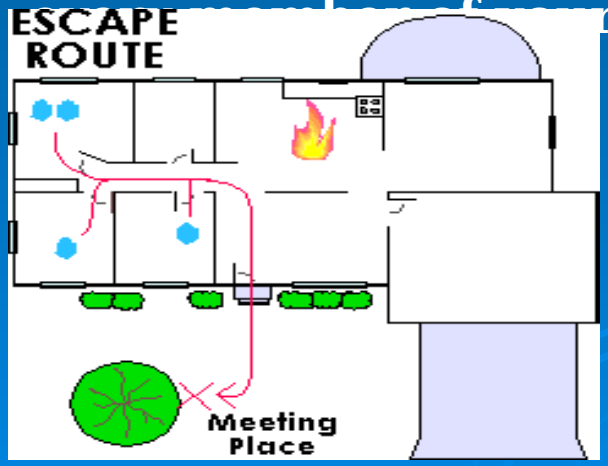
LEARN about E.D.I.T.H.

Fire Drills In The Home

PLAN YOUR ESCAPE

- **Once a fire has started, there is no time to plan how to get out. Sit down with your family today, and make a step-by-step plan for escaping a fire.**

- **Draw a floor plan of your home, marking two ways out of every room - especially sleeping areas. Discuss the escape routes with [illegible] household.**



- **Agree on a Meeting Place, where every member of the household will gather outside your home after escaping a fire to wait for the fire department. This allows you to count heads and inform the fire department if anyone**

Fire Evacuation

- **Practice your escape plan** at least twice a year. Have a fire drill in your home. Appoint someone to be the monitor, and have everyone participate. A fire drill is not a race. Get out quickly, but carefully.

MAKE YOUR EXIT DRILL REALISTIC

- **Pretend that some exits are blocked** by fire, and practice alternative escape routes. Pretend that the lights are out and that some escape routes are filling with smoke.

Be Prepared

- **Make sure** everyone in the household can unlock all doors and windows quickly, even in the dark. Windows or doors with security bars need to be equipped with quick-release devices, and everyone in the household should know how to use them.

Fire Evacuation

- **If you live in a multi-story house** and you must escape from an upper story window, be sure there is a safe way to reach the ground, such as a fire-resistant fire escape ladder. Make special arrangements for children, older adults and people with disabilities. People who have difficulty moving should have a phone in their sleeping area and, if possible, should sleep on the ground floor.

- **Test doors before opening them.**

While kneeling or crouching at the door, reach up as high as you can and with the back of your hand touch the door, the knob, and the crack between the door and its frame. If you feel any warmth at all, use another escape route. If the door feels cool, open it with caution.

Fire Evacuation

In case of a fire, don't stop for anything. Do not try to rescue possessions or pets. Go directly to your meeting place, and then call the fire department from a neighbor's phone, a portable phone, or an alarm box. Every member of your household should know how to call the fire department.

- **Crawl low under the smoke.**

Smoke contains deadly gases, and heat rises. During a fire, cleaner air will be near the floor. If you encounter smoke when using your primary exit, use an alternative escape route. If you must exit through smoke, crawl on hands and knees, keeping your head 12 to 24 inches (30 - 60 cms) above the floor.

Fire Evacuation

- **. . . and stay out**

  Once you are out of your home, don't go back for any reason. If people are trapped, the firefighters have the best chance of rescuing them. The heat and smoke of a fire are overpowering. Firefighters have the training, experience, and protective equipment needed to enter burning buildings.

Play it Safe

NOW, use what you've learned.

SET UP YOUR PLAN, including two ways out, a meeting place.

CONDUCT A PRACTICE DRILL to determine if anything has been overlooked.

Kitchen/Grease Fire

- At home one of the most common reasons for a fire is unattended cooking.

Grease Fires

The grease fire occurs when oil or grease type foods are heated and ignite. A grease fire can do significant damage. Open flames can extend to surrounding cabinets or other combustible items. If unnoticed, a grease fire can extend to a major house fire, engulfing the entire kitchen, adjacent rooms or even the attic. This becomes a dangerous life-threatening fire.

Oven Fires

Most of the time an oven fire is not serious. The fire is usually contained in the oven, which is designed for high heat anyway. The oven fire usually suffocates or is easily extinguished.

Kitchen/Grease Fire

- **What to do if there is a kitchen fire.**

In all cases, make sure everyone evacuates the house.

Call the fire brigade and report the fire.

If the fire is still very small, you can use a fire extinguisher to try and put it out. But if the fire gets out of control, get out of the house and wait for the fire department to arrive.

You might be able to extinguish a grease fire on the stove in several different ways. The simplest way is to place a lid on the pan and the fire should suffocate.

Once you have the fire extinguished, don't forget to turn off the burner. But if the flames are too high, don't risk getting burned.

Kitchen/Grease Fire

Never, never put water on a grease fire!

Water will splatter the grease and dramatically increase the size of the fire. You will easily get burned! NEVER try to carry a flaming grease fire outside. It will quickly be too hot to carry and you will certainly spread the fire over the entire area.

Fire Extinguishers

Water extinguishers contain water and compressed gas and should only be used on Class A (ordinary combustibles) fires.

Carbon Dioxide (CO_2) extinguishers are most effective on Class B and C (liquids and electrical) fires. Since the gas disperses quickly, these extinguishers are only effective from 3 to 8 feet. The carbon dioxide is stored as a compressed liquid in the extinguisher; as it expands, it cools the surrounding air. The cooling will often cause ice to form around the "horn" where the gas is expelled from the extinguisher. Since the fire could re-ignite, continue to apply the agent even after the fire appears to be out.

Dry Chemical extinguishers are usually rated for multiple purpose (Class A, B and C) use. They contain an extinguishing agent and use a compressed, non-flammable gas as a propellant.

How to use Fire Extinguishers

P A S S -- Pull, Aim, Squeeze, and Sweep

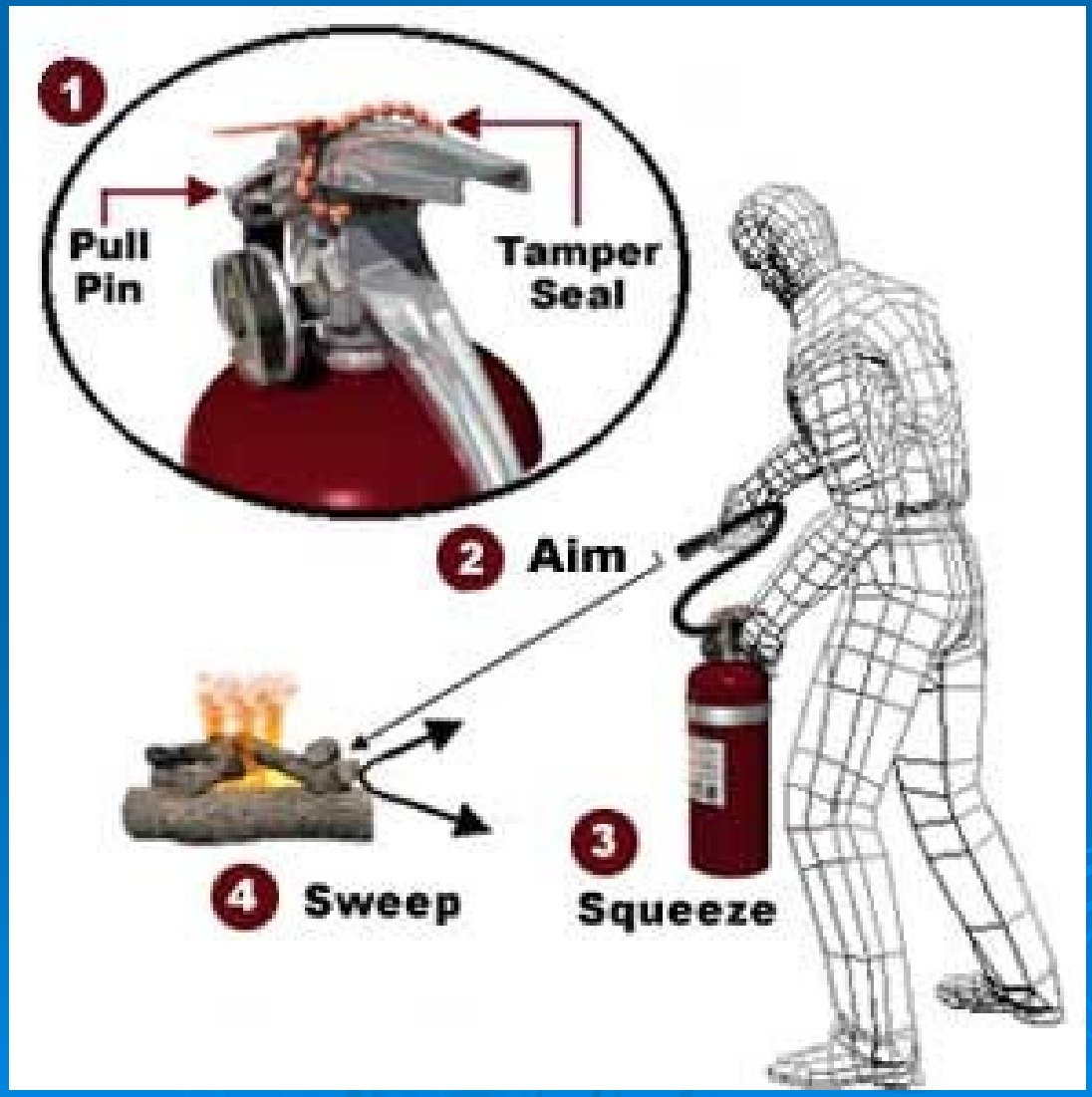
- **PULL**
  Pull the pin. This will also break the tamper seal.
- **AIM**
  Aim low, pointing the extinguisher nozzle (or its horn or hose) at the base of the fire.

  Note: Do not touch the plastic discharge horn on CO_2 extinguishers, it gets very cold and may damage skin.
- **SQUEEZE**
  Squeeze the handle to release the extinguishing agent.
- **SWEEP**
  Sweep from side to side at the base of the fire until it appears to be out. Watch the area. If the fire re-ignites, repeat steps 2 - 4.

If you have the slightest doubt about your ability to fight a fire….EVACUATE IMMEDIATELY!

How to use Fire Extinguishers

P A S S -- Pull, Aim, Squeeze, and Sweep



Questions ?
Comments !
That's it...